

**Annual Report on Affordability Findings for Compliance with the Missouri Clean Water Law
Calendar Year 2022**

**Prepared by Missouri Department of Natural Resources
Water Protection Program**

The General Assembly enacted Section 644.145 of the Revised Statutes of Missouri (RSMo) in 2011, to ensure that the Department of Natural Resources considers affordability when incorporating new requirements for discharges into permits for publicly owned sewer systems or water or sewer treatment works, or when enforcing provisions of Chapter 644 RSMo or the Federal Water Pollution Control Act. This report presents the Department's affordability findings made during calendar year 2022. Whenever the risk of an unaffordable action is high, the Department works with permittees before issuing any final permit or final enforcement action to mitigate impacts where possible and avoid creating an unaffordable situation. These mitigation efforts can include temporary variances, revised compliance schedules, and the reevaluation of financing options.

The statutory definition of affordability with respect to payment of a utility bill is: "a measure of whether an individual customer or household with an income equal to or lower than the median household income for their community can pay the bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household, taking into consideration the criteria described in subsection 4 of this section." Section 644.145.3(1) RSMo. See Appendix A for the subsection 4 criteria.

Number of Findings of Affordability

The Department conducted 53 findings of affordability with effective dates in calendar year 2022. In all cases where affordability challenges exist, the Department seeks ways to reduce economic impacts. The most common approach is allowing adequate time in implementation schedules to mitigate potential adverse impacts resulting from the costs of the improvements. The Department also seeks opportunities for struggling systems to regionalize or consolidate with other utilities, on a voluntary basis. Also, the Department uses compliance assistance to work with communities to avoid enforcement actions that would impose penalties that would cause further affordability challenges. By using these and other approaches, all 53 findings were categorized as affordable.

Findings Resulting in Higher Than Normal Rate Increases Compared to Median Household Income

Missouri's affordability statute does not establish a numeric threshold for affordability relative to median household income (MHI), although MHI is commonly regarded as an indicator of potential affordability concerns. Of the 53 actions requiring affordability findings in 2022, three actions would have increased sewer rates to result in a projected sewer rate per user greater than 2 percent of MHI. The Department determined these actions still qualified as affordable based on the following facts and circumstances detailed below:

- Permit actions for the Village of Caledonia Wastewater Treatment Facility (WWTF) require compliance with effluent limitations for Ammonia, which resulted in an estimated \$234.74 increase in the projected sewer rate, or from \$49.26 to \$284.00 (per 5,000 gallons per month) for mechanical plant upgrades. Upgrade costs for a land application system resulted in an estimated \$60.99 increase in projected sewer rate, or from \$49.26 to \$110.25 (per 5,000 gallons per month). The existing sewer rate was 0.96 percent of MHI; therefore, the Department granted a multiple

discharger variance (MDV). A MDV is written to mitigate the substantial and widespread economic impact that the residents of a community would endure in order to meet the final effluent limits for Ammonia. The MDV will provide users up to 20 years to afford upgrade costs in order to meet new effluent limits for Ammonia and may be extended by affirmative action of the commission. The Department will review the cost for compliance at the next five-year permit renewal.

- Permit actions for the Village of Fountain N' Lakes WWTF require compliance with effluent limitations for Ammonia, resulting in a \$36.99 increase in the projected monthly sewer rate, or from \$55.20 to \$92.19 (per 5,000 gallons per month). The requirements would increase sewer rates to 2.564 percent of MHI; therefore, based on the permittee's progress toward compliance, the Department retained the existing 8-year schedule, which has two years remaining for the permittee to meet these permit requirements.
- Permit actions for the City of Osceola require compliance with influent limitations for Total Kjeldahl Nitrogen, Nitrate and Nitrite, Ammonia and Total Phosphorus, resulting in a \$0.17 in the projected monthly sewer rate, or from \$45.00 to \$45.17 (per 5,000 gallons per month). The existing sewer rate was already 2.034 percent of the community's MHI and the new requirements would increase sewer rates by 0.08 percent, to 2.042 percent of MHI. The Department anticipates an extremely low to no sewer rate increase due to the minimal cost increase associated with the new permit requirements.

Findings Resulting in Projected Increase of Monthly Sewer Rate per User of 100 percent or Higher

Of the 53 actions requiring affordability findings in 2022, four municipalities' requirements resulted in a projected 100 percent or higher increase of monthly sewer rate per user. In three of the four cases, the revised sewer rate for each of the municipalities is calculated to be less than 2 percent of MHI, with the highest finding resulting in a projected rate of 1.757 percent of MHI. For the purpose of this analysis, the Department analyzed compliance efforts that would require a system modification or replacement. Although these permit actions have been determined to be affordable based on the criteria of the statute, the Department will continue to work with each system to identify lower-cost technologies, options for consolidation or regionalization, and opportunities for grants and low-interest loans.

- The Village of Caledonia must meet new effluent limits for Ammonia. As stated previously, the Department estimates the cost for land application will increase the monthly sewer rate per user by \$60.99, which is a 123.81 percent increase that will raise the projected sewer rate to 2.163 percent of the community's MHI. The cost to upgrade the mechanical plant will increase the monthly sewer rate per user by \$234.74, which is a 476.53 percent increase that will raise the projected sewer rate to 5.572 percent of the community's MHI. The Department included a multiple discharger variance, which provides up to 20 years to afford upgrade costs in order to meet new effluent limits for Ammonia.
- The Lake Forest Estates Clean Water District must meet new effluent limits for Ammonia, *E. coli*, Biological Oxygen Demand, Total Suspended Solids, Dissolved Oxygen, Total Phosphorus and Total Nitrogen. The Department estimates the cost for mechanical plant upgrades to meet new requirements will increase the monthly sewer rates per user by \$48.56, or from \$40.56 to \$89.12, which is a 0.957 percent increase that will raise the projected sewer rate to 1.757 percent

of the community's MHI. The Department retained the existing 13-year schedule of compliance, which has one year remaining to meet Total Suspended Solids, Ammonia and *E. coli* limits and has seven years remaining to meet Biological Oxygen Demand, Total Nitrogen, Total Phosphorus and Dissolved Oxygen limits.

- The City of Morehouse must meet new effluent limits for Ammonia. The Department estimates the cost for complete replacement of the existing treatment system to meet new requirements will increase the monthly sewer rates per user by \$28.80, or from \$12.44 to \$41.24, which is a 231.51 percent increase that will raise the projected sewer rate to 1.658 percent of the community's MHI. The Department retained the existing 9-year schedule of compliance, which has four years remaining.
- Enforcement actions for Selma Village require mechanical plant upgrades to meet Ammonia and *E. coli* limits at the Selma Village Lagoon as outlined in an Abatement Order on Consent (AOC). Necessary upgrades would result in an estimated \$31.90 increase in the projected monthly sewer rate, or from \$25.00 to \$56.90 (per 5,000 gallons per month), a 127.60 percent increase that will raise the projected sewer rate to 1.221 percent of the community's MHI. The AOC states Selma Village Sewer District must either complete upgrades or sell the wastewater treatment facility. If Selma Village chooses to complete upgrades, a Facility Plan must be submitted within 120 days of the AOC execution date and complete upgrades as outlined in the Facility Plan. If Selma Village chooses to sell the treatment plant, a statement outlining the schedule of sale actions must be submitted within 60 days of the AOC effective date and submit transfer application within 30 days of the sale of the treatment facility.

Average Increase in Sewer Rates

For the 53 findings, the projected increases in monthly sewer rates in terms of 2022-dollar values ranged from \$0.03 to \$234.74, with an average of a \$13.54 increase. The projected increases in sewer rates by percentage ranged from 0.0 percent to 476.53 percent, with an average of a 35.68 percent increase.

Average Increase in Sewer Rates as Percentages of MHI

For the 53 findings, the projected increases in sewer rates when calculated as percentages of the respective communities' MHI ranged from 0.0 percent to 4.606 percent, with an average of 0.309 percent. The communities included counties, cities, villages, towns, and census-designated places in which the service users were residing.

Regionalization and Consolidation: An Increasing Choice for Pollution Control

In the Department's ongoing effort to help Missouri citizens thrive by balancing a healthy environment with a healthy economy, one of our primary goals is to promote more efficient, resilient, and sustainable wastewater infrastructure across the State. As small wastewater systems face significant challenges in providing service to their users at a reasonable cost while complying with federal and state regulations, two options are becoming a more favorable option: regionalization and consolidation.

Regionalization refers to sharing physical infrastructure in a defined geographic area when a political or private entity provides wastewater service by physically connecting existing and future communities to a regional or central WWTF. When multiple entities work together, each utility benefits from reduced capital and operational costs, and increased economies of scale.

Consolidation refers to the transfer of ownership and/or operational authority of an independent wastewater system to a larger system. The fundamental advantage of consolidating systems under a central provider is financial — there are simply more customers to share the burden of paying the bills. Another benefit is that small wastewater system owners are able to relinquish the burden of regulatory obligations.

Completed consolidation and regionalization projects in Missouri have already demonstrated the ability to improve services to residents, improve water quality in our rivers, streams, and lakes, and ultimately reduce costs to providers.

List of All the Permit Holders Receiving Affordability Findings

All permit holders for which the Department issued affordability findings in 2022 are provided in Table 1 along with data, including the following items required by Section 644.145.9(4) RSMo:

- a) Current and projected monthly residential sewer rates in dollars;
- b) Projected monthly residential sewer rates as a percentage of median household income; and,
- c) Percentages of households at or below the state poverty rate.

All footnotes within Table 1 are denoted by an asterisk and a number (“*1” through “*19”) and are presented at the end of Table 1.

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2022

(This table is arranged in descending order of the values for the indicator “projected monthly sewer rate per user as a percentage of monthly MHI of the respective community” as presented in the column with the highlighted heading of “Projected Monthly Sewer Rate Per User: % of Monthly MHI.”)

RSMo 644.145.9 Criteria																	
													Federal Mandate	0			
													Not Affordable	0			
													Average *1	Average *2	Average *3		
													\$13.54	35.68%	0.309%	Affordable	53
No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8			
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7						
1	MO-0128571	Caledonia WWTF	UM	\$61,162	54	\$49.26	\$284.00	5.572%	\$234.74	476.53%	4.606%	*16/*18	13.8%	Yes			
			UL				\$110.25	2.163%	\$60.99	123.81%	1.197%						
2	MO-0126101	Village of Fountain N' Lakes WWTF	UL	\$43,153	62	\$55.20	\$92.19	2.564%	\$36.99	67.01%	1.029%	*16	18.7%	Yes			
3	MO-0093548	Osceola WWTF	S	\$26,548	370	\$45.00	\$45.17	2.042%	\$0.17	0.38%	0.008%	*16	28.0%	Yes			
4	MO-0021466	Albany WWTP	S	\$39,816	799	\$63.50	\$63.58	1.916%	\$0.08	0.13%	0.002%		17.4%	Yes			
5	MO-0092932	Laclede WWTF	UL	\$38,912	148	\$44.00	\$61.35	1.892%	\$17.35	39.43%	0.535%		9.0%	Yes			
6	MO-0035742	Lake Forest Estates CWD WWTF	UM	\$60,871	290	\$40.56	\$89.12	1.757%	\$48.56	119.72%	0.957%	*18	11.5%	Yes			
7	MO-0118966	Northeast Correctional Center WWTF	S	\$38,595	1,475	\$55.15	\$55.20	1.716%	\$0.05	0.09%	0.002%		16.8%	Yes			
8	MO-0109240	Downing WWTF	S	\$31,409	152	\$43.20	\$43.47	1.661%	\$0.27	0.62%	0.010%		24.0%	Yes			
9	MO-0030821	Morehouse WWTF	UL	\$29,855	369	\$12.44	\$41.24	1.658%	\$28.80	231.51%	1.158%	*18	23.0%	Yes			
10	MO-0044202	Jasper WWTF	UM	\$47,188	389	\$45.00	\$63.31	1.610%	\$18.31	40.69%	0.466%	*11	20.1%	Yes			
11	MO-0132438	Clifton Hill WWTF	S	\$37,081	63	\$48.00	\$49.16	1.591%	\$1.16	2.42%	0.038%		9.2%	Yes			
12	MO-0093076	Pilot Grove West WWTF	UM	\$44,035	278	\$58.75	\$58.20	1.586%	\$0.00	0.00%	0.000%	*11	11.8%	Yes			
13	MO-0021105	Appleton City WWTF	S	\$33,500	477	\$44.06	\$44.19	1.583%	\$0.13	0.30%	0.005%		22.0%	Yes			
14	MO-0040134	Frankford WWTP	S	\$35,662	162	\$41.36	\$46.07	1.550%	\$4.71	11.39%	0.158%		21.3%	Yes			

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2022 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
15	MO-0093564	St James WWTF	UM	\$42,578	1,905	\$31.25	\$54.06	1.524%	\$22.81	72.99%	0.643%	*11	22.8%	Yes
16	MO-0134732	Berger WWTF	UD	\$40,493	104	\$44.65	\$50.90	1.508%	\$6.25	14.00%	0.185%		24.1%	Yes
17	MO-0132900	Argyle WWTF	S	\$53,780	68	\$67.50	\$67.60	1.508%	\$0.10	0.15%	0.002%		0.0%	Yes
18	MO-0043231	Stanberry WWTF	S	\$49,351	725	\$58.20	\$58.25	1.416%	\$0.05	0.09%	0.001%		14.5%	Yes
19	MO-0116246	Marquand WWTF	S	\$33,624	118	\$38.00	\$38.45	1.372%	\$0.45	1.18%	0.016%		14.4%	Yes
20	MO-0028070	Harrisonville WWTF	S	\$47,989	4,161	\$52.99	\$53.45	1.337%	\$0.46	0.87%	0.012%		17.6%	Yes
21	MO-0052663	Clarkton WWTF	S	\$31,746	454	\$34.81	\$34.90	1.319%	\$0.09	0.26%	0.003%		32.9%	Yes
22	MO-0048097	Alma Sewage Treatment Lagoon	UL	\$58,632	213	\$40.00	\$63.13	1.292%	\$23.13	57.83%	0.473%		7.3%	Yes
23	MO-0039900	Parma WWTF	S	\$30,258	240	\$31.27	\$32.01	1.269%	\$0.74	2.37%	0.029%		47.4%	Yes
24	MO-0028061	Braymer WWTF	S	\$49,973	387	\$52.50	\$52.78	1.267%	\$0.28	0.53%	0.007%		14.4%	Yes
25	MO-0094137	Reeds Spring WWTP	S	\$40,283	418	\$42.35	\$42.44	1.264%	\$0.09	0.21%	0.003%		17.0%	Yes
26	MO-0086291	Exeter WWTP	S	\$41,814	241	\$43.50	\$43.74	1.255%	\$0.24	0.55%	0.007%		14.7%	Yes
27	MO-0088854	Selma Village WWTF	UM	\$55,917	305	\$25.00	\$56.90	1.221%	\$31.90	127.60%	0.685%	*11/*18	12.7%	Yes
28	MO-0030821	Morehouse WWTF	UD	\$29,855	369	\$26.53	\$29.99	1.205%	\$3.46	13.04%	0.139%	*11	20.1%	Yes
29	MO-0119997	Branson West South Aunts Creek	S	\$42,514	272	\$41.16	\$41.39	1.168%	\$0.23	0.56%	0.006%		9.8%	Yes
30	MO-0094943	Crocker WWTF	S	\$38,103	469	\$36.85	\$36.93	1.163%	\$0.08	0.22%	0.003%		29.5%	Yes
31	MO-0113751	MAWC, Trimble WWTF	UM	\$54,697	285	\$31.00	\$52.66	1.155%	\$21.66	69.87%	0.475%		18.5%	Yes
32	MO-0048054	Bernie WWTP	S	\$36,255	1,060	\$30.74	\$30.83	1.020%	\$0.09	0.29%	0.003%		21.3%	Yes
33	MO-0040118	Licking Northwest WWTP	S	\$28,432	660	\$22.26	\$22.44	0.947%	\$0.18	0.81%	0.008%		31.2%	Yes
34	MO-0023108	Higginsville South Lagoon	S	\$54,557	1,046	\$42.50	\$42.54	0.936%	\$0.04	0.09%	0.001%		19.2%	Yes
35	MO-0120634	Wentworth WWTP	S	\$51,145	53	\$35.00	\$35.72	0.838%	\$0.72	2.06%	0.017%		16.8%	Yes
36	MO-0027111	Herculaneum WWTP	S	\$66,256	1,745	\$38.40	\$38.50	0.697%	\$0.10	0.26%	0.002%		9.3%	Yes
37	MO-0050601	Fairfax WWTF	S	\$39,696	325	\$20.25	\$20.37	0.616%	\$0.12	0.59%	0.004%		20.2%	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2022 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
38	MO-0055204	Smithville WWTF	S	\$80,470	3,650	\$37.25	\$37.30	0.556%	\$0.05	0.13%	0.001%		5.2%	Yes
39	MO-0126241	FCPWSD No 1 Krakow Area Lagoon	S	\$61,633	300	\$27.60	\$27.73	0.540%	\$0.13	0.47%	0.003%		7.8%	Yes
40	MO-0055182	Benton WWTP	S	\$58,391	357	\$17.50	\$20.57	0.423%	\$3.07	17.54%	0.063%		14.5%	Yes
41	MO-0030970	St Peters Spencer Creek STP	S	\$79,758	19,681	\$18.37	\$18.40	0.277%	\$0.03	0.16%	0.000%		3.2%	Yes
42	MO-R04C046	City of Gladstone Fish Kill	CR	\$59,726	9,744	\$64.00	*11	*11	*11	*11	*11	*11	11.9%	Yes
43	MO-G760204	Farmington Waterpark	CR	\$47,963	*11	*11	*11	*11	*11	*11	*11	*11	11.8%	Yes
44	MO-0113395	FCPWSD No 3 St Albans WWTF	S	\$57,920	327	\$45.35	*12	*12	*12	*12	*12	*12	10.5%	Yes
45	MO-0109177	Beauty View Acres WWTF	S	\$57,920	255	\$45.00	*12	*12	*12	*12	*12	*12	10.5%	Yes
46	MO-0129470	SCPSD#1, Box Canyon Watershed WWTP	S	\$50,269	545	\$56.50	*12	*12	*12	*12	*12	*12	12.9%	Yes
47	MO-0086576	JCPSD, Bel Air Estates WWTF	S	\$70,782	4,597	\$46.97	*12	*12	*12	*12	*12	*12	9.1%	Yes
48	MO-0106577	JCPSD, Sennawood Village WWTF	S	\$70,782	4,597	\$46.97	*12	*12	*12	*12	*12	*12	9.1%	Yes
49	MO-0036382	JCPSD, Summer Set WWTF	S	\$70,782	4,597	\$46.97	*12	*12	*12	*12	*12	*12	9.1%	Yes
50	MO-0045535	JCPSD, Edgewood Heights WWTF	S	\$70,782	4,597	\$46.97	*12	*12	*12	*12	*12	*12	9.1%	Yes
51	MO-0138657	Clyde Hamrick Elementary School WWTP	S	\$66,261	*13	*13	*13	*13	*13	*13	*13	*13	*13	Yes
52	MO-0024961	KC Todd Creek WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
53	MO-0098418	St Jude Industrial Park	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2022 (Cont.)

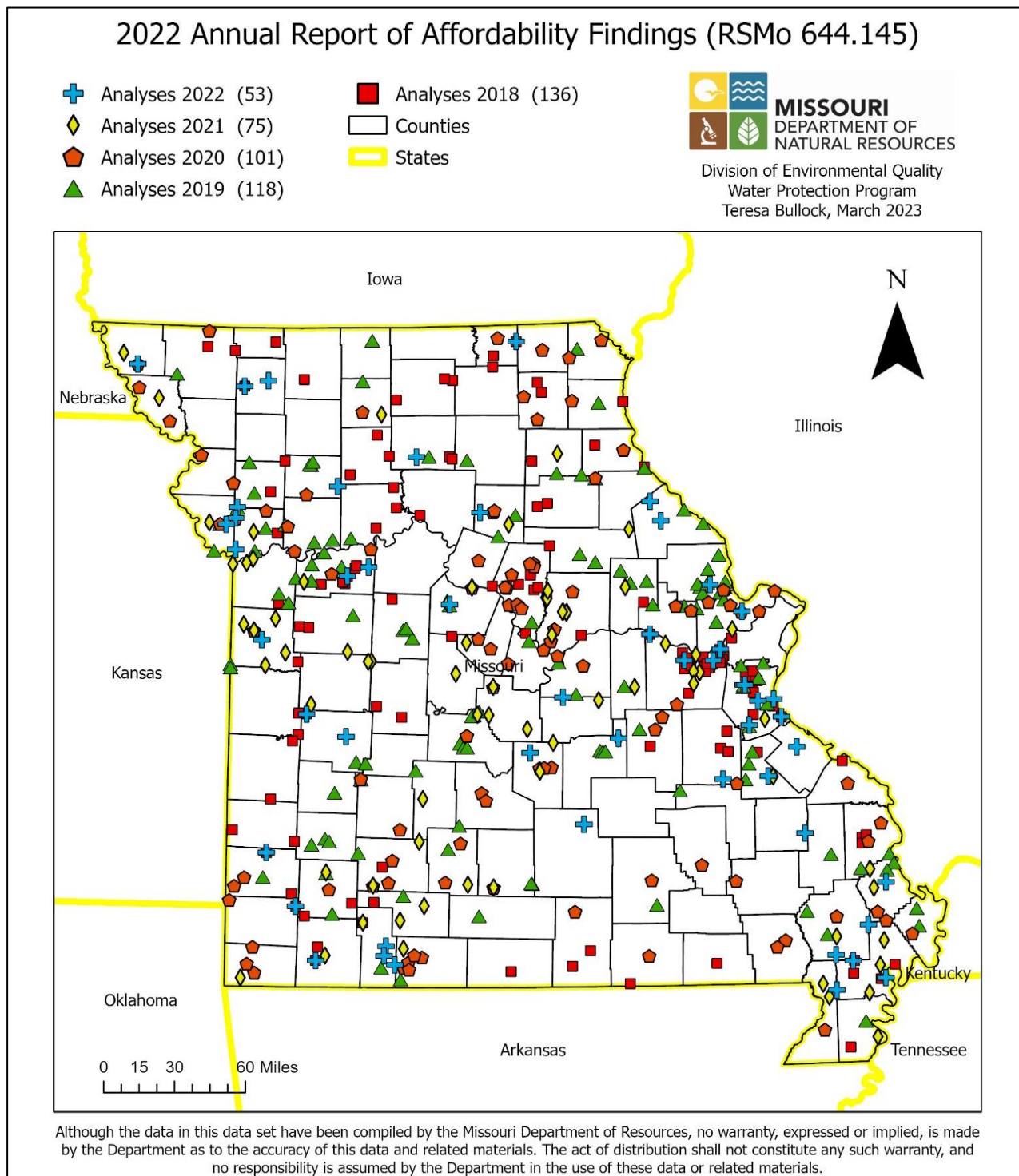
<u>Notes</u>	
*1	Average increase of monthly sewer rate per user = “sum of increase of monthly sewer rate per user” / “41 available data points”
*2	Average increase of monthly sewer rate as a % = “sum of increase of monthly sewer rate as a %” / “41 available data points”
*3	Average increase of monthly sewer rate as a % of monthly MHI = “sum of increase of monthly sewer rate as a % of monthly MHI” / “41 available data points”
*4	This table is arranged in descending order of projected monthly sewer rate per user as a percentage of monthly MHI of the respective community.
*5	<p>Abbreviations used in the facility names include the following:</p> <p>CWD: Clean Water District FCPWSD: Franklin County Public Water Sewer District JCPSD: Jefferson County Public Sewer District KC: Kansas City MAWC: Missouri American Water Company PWSD: Public Water Supply District SCPSD: Stone County Public Sewer District STP: Sewage Treatment Plant WWTF: Wastewater Treatment Facility WWTP: Wastewater Treatment Plant</p>
*6	<p>Abbreviations used in the pollution control options include the following:</p> <p>S: sampling only UC: upgrade (collection system) UD: upgrade (disinfection only) UL: upgrade (land application) UM: upgrade (mechanical plant) RC: regionalization and consolidation CR: cost recovery</p>
*7	MHI: annual median household income
*8	Yes: affordable; No: not affordable; Mandate: federal mandate regardless of affordability.

Notes (cont.)

- *9 $[E]=[D/(A/12)]*100$
 $[F]=[D]-[C]$
 $[G]=[F/C]*100$
 $[H]=[F/(A/12)]*100$
- *10 Data not available as the permittees did not provide their current user rates, although the Department had made attempts to obtain the information.
- *11 Analyses included in Abatement Order on Consent documents.
- *12 Not applicable, as different sewer districts use specific rate structures and they are generally considered as sufficient to comply with the permits.
- *13 Not applicable, as schools, churches, nursing homes, airports, ports, training centers, correctional centers, and other institutional facilities do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates.
- *14 Not applicable, as federal-owned, state-owned, and local government-owned systems do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates.
- *15 The projected user rates were lower than the current sewer rates, therefore the current sewer rates were used to assess residential impacts, as it is unlikely the user rates would decrease after upgrading the facilities.
- *16 Projected monthly user rate as a percentage of the monthly MHI exceeds 2%. An affordability threshold for projected monthly user rate as a percentage of the monthly MHI varies depending on the situation of each individual community. The cost analyses associated with these permits have resulted in findings that the projected monthly user rates will likely be affordable. If additional information is provided in the future that indicate the projected monthly user rates are unaffordable, the Department will modify the analyses and permits accordingly and grant extensions to schedules of compliance to mitigate the impacts on the residents.
- *17 Facilities with a projected decrease in monthly sewer rate per user while the current monthly sewer rate per user exceeds 2% of the community's monthly MHI. Since it is unlikely a monthly sewer rate will decrease, in these cases, the Department is working with permittees to secure grants and low-interest loans wherever possible.
- *18 Facilities with a projected 100% or greater increase in monthly sewer rate per user. In all cases, the Department is working with the permittees to secure grants and low-interest loans wherever possible.
- *19 Facilities that waived the affordability analysis requirement.

2. Geographical Distribution: 2018-2022

The locations of the wastewater treatment facilities for which the Department conducted affordability findings during calendar years 2018 through 2022 respectively are illustrated in Map 1 below.



Map 1. Locations of the Wastewater Treatment Facilities with Affordability Findings Issued in 2018 through 2022

3. Conclusion

Based on the information and data collected, derived, and examined, all the new requirements for discharges incorporated into permits for publicly owned sewer systems or water or sewer treatment works, and all actions enforcing provisions of Chapter 644 RSMo or the Federal Water Pollution Control Act by the Missouri Department of Natural Resources during calendar year 2021 met the affordability criteria.

This report was prepared by the Operating Permits Section of the Water Protection Program, Missouri Department of Natural Resources.

Appendix A. Subsections 644.145.4 and 644.145.9 of the Revised Statutes of Missouri

Revised Statutes of Missouri Chapter 644 Water Pollution

644.145.4. The department of natural resources shall adopt procedures by which it will make affordability findings that evaluate the affordability of permit requirements and enforcement actions described in subsection 1 of this section, and may begin implementing such procedures prior to promulgating implementing regulations. The commission shall have the authority to promulgate rules to implement this section pursuant to chapters 536 and 644, and shall promulgate such rules as soon as practicable. Affordability findings shall be based upon reasonably verifiable data and shall include an assessment of affordability with respect to persons or entities affected. The department shall offer the permittee an opportunity to review a draft affordability finding, and the permittee may suggest changes and provide additional supporting information, subject to subsection 6 of this section. The finding shall be based upon the following criteria:

- (1) A community's financial capability and ability to raise or secure necessary funding;
- (2) Affordability of pollution control options for the individuals or households at or below the median household income level of the community;
- (3) An evaluation of the overall costs and environmental benefits of the control technologies;
- (4) Inclusion of ongoing costs of operating and maintaining the existing wastewater collection and treatment system, including payments on outstanding debts for wastewater collection and treatment systems when calculating projected rates;
- (5) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low- and fixed-income populations. This requirement includes but is not limited to:
 - (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations; and
 - (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained;

- (6) An assessment of other community investments and operating costs relating to environmental improvements and public health protection;
- (7) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards; and
- (8) An assessment of any other relevant local community economic condition.

644.145.9. The department shall file an annual report by the beginning of the fiscal year with the governor, the speaker of the house of representatives, the president pro tempore of the senate, and the chairs of the committees in both houses having primary jurisdiction over natural resource issues showing at least the following information on the findings of affordability completed in the previous calendar year:

- (1) The total number of findings of affordability issued by the department, those categorized as affordable, those categorized as not meeting the definition of affordable, and those implemented as a federal mandate regardless of affordability;
- (2) The average increase in sewer rates both in dollars and percentage for all findings found to be affordable;
- (3) The average increase in sewer rates as a percentage of median house income in the communities for those findings determined to be affordable and a separate calculation of average increases in sewer rates for those found not to meet the definition of affordable;
- (4) A list of all the permit holders receiving findings, and for each permittee the following data taken from the finding of affordability shall be listed:
 - (a) Current and projected monthly residential sewer rates in dollars;
 - (b) Projected monthly residential sewer rates as a percentage of median household income;
 - (c) Percentage of households at or below the state poverty rate.

Appendix B. Overall Procedure for Making Affordability Findings

The Department conducts an affordability finding, or a Cost Analysis for Compliance (CAFCOM), as part of the renewal process for a National Pollutant Discharge and Elimination System (NPDES) permit, utilizing the following four primary tools and data sources:

- (1) A Financial Questionnaire with a Community Supplemental Survey sent to permit holders categorized as a Publicly Owned Treatment Works (POTW) for collecting information on the sustainability and financial capability of the community; examples of information requested are the "current monthly residential sewer rates," and a primary socioeconomic indicator (Table 1), and "property tax collection rate in the municipality," a secondary socioeconomic indicator;
- (2) The Affordability Prescreening Tool developed by the Department for compiling and analyzing socioeconomic data available from national, regional and local databases, including statistics

from the U.S. Census Bureau; an example of data being “monthly median household income” (Table 1) and “percentage of households at or below poverty” (Table 1);

- (3) A CAPDEWORKS Model developed by Hydromantis Environmental Software Solutions, Inc. for estimating the capital costs and operating and maintenance costs for different wastewater treatment technologies for compliance of upgrades so as to calculate the “projected monthly residential sewer rate” (Table 1);
- (4) The Missouri Rural Population Sustainability Assessment Tool developed by the Environmental Finance Center at Wichita State University for assessing the potential of growth and sustainability of each rural community.

Once the draft NPDES permit is completed, the permit holder is given the opportunity to review and comment on the draft permit and the CAFCom during the 10-day preview and 30-day public notice period. These review and comment periods offer permit holders an opportunity to provide additional information in regard to their community’s unique financial situations before the final NPDES permit is issued. When the NPDES permit contains a Schedule of Compliance, during the 10-day preview, Department staff contact the permit holder via phone calls to ensure the permit holder has received and understood the draft permit and the CAFCom.